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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/667,653

09/23/2003

Christophe Carola

MERCK-2753

9118

23599

7590

06/26/2006

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EXAMINER

CHONG, YONG SOO

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/667,653

Applicant(s)

CAROLA ET AL.

Examiner

Yong S. Chong

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of the Application***

This Office Action is in response to applicant's arguments filed on 5/2/2006. Claims 1-18 are pending. Claims 1-17 have been amended. Claims 12-17 have been withdrawn. Claims 1-11, 18 are examined herein. Applicant's arguments have been fully considered but found persuasive to withdraw the obviousness double patenting, 101, and all 102(b) rejections of the last Office Action. The 112 and 103(a) rejections are maintained for reasons of record. They are repeated below for Applicant's convenience.

Applicant argues that the restriction of Group II from Group I should be withdrawn. Examiner reminds the Applicant that the only positive active steps involved for the method claims of Group II is simply mixing, which read on numerous known processes. Moreover, the separate classification presents a search burden.

### ***Claim Objections***

Claim 5 is objected to because of the following informalities: Claim 5 does not further limit claim 1, because the concentration range (0.01 to 20% by weight) is the exact same in both claims. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "at least 2 pairs" for the compound where "at least 3 radicals" is stated earlier. There is insufficient antecedent basis for this limitation in the claim.

### ***Response to Arguments***

Applicant argues that the amendments have rendered the rejection moot. The Examiner disagrees because claim 1 still recites the limitation "at least 2 pairs of -OH groups" for the compound where "at least 3 radicals" is stated earlier. The term "at least 2 pairs" is interpreted as meaning 4 -OH, while "at least 3" requires only 3 -OH.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham vs John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-11, 18 are rejected under 35 U.S.C. 103(a) as being obvious over Ley et al. (US Patent 6,265,611 B1) in view of Prendergast et al. (WO 01/03681 A2) and further in view of Jensen et al. (US Patent 2,550,255).

The instant claims are directed to a composition comprising a compound of formula I, an antioxidant, and a UV filter.

Ley et al. teach an antioxidant composition for use in foods and cosmetics (abstract). Among the auxiliaries and additives, preservatives, bactericides, fungicides, emulsifiers, other antioxidants such as tocopherols, vitamin E, vitamin C, vitamin A (col. 4, lines 15-49), and UV filters such as 3-(4-methylbenzylidene)-dl-camphor (col. 5, lines 1-11) may be added in the amounts between 5-95% by weight (col. 4, lines 15-16).

However, Ley et al. fail to disclose specifically the bactericide or fungicide of formula I.

Prendergast et al. teach a composition comprising a compound of formula 1, where X1 = O, X2 = carbonyl, R8 = H or OH, R10 = OH, and a double bond between carbons 2 and 3 (pg. 4, lines 1-21). Moreover, the composition containing this compound can be formulated into an emulsion (pg. 28, lines 24-28) and can contain antioxidants (pg. 30, line 34). Compounds of formula 1 are disclosed to be used as a bactericide or fungicide (pg. 33, lines 26-27).

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Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed invention was made, to substitute the bactericide/fungicide of formula 1 as taught by Prendergast et al. into the composition as taught by Ley et al.

A person of ordinary skill in the art would have been motivated to make this substitution because the anti-bacterial properties of the compound of formula 1 as taught by Prendergast et al. can be used as a preservative on foods to prevent spoilage and decomposition as taught by Jensen et al. (col. 1, lines 34-56).

### ***Response to Arguments***

Applicant argues that Ley et al. teaches monocyclic amides that are chemically distinct from the flavonoid compounds of the instant invention. Applicant also argue that Jensen et al. does not teach the flavonoid compounds of the instant invention.

In response to applicant's arguments against the references, one cannot show nonobviousness by attacking references individually where the rejections are based on the combination of references. See *In re Keller*, 642 F. 2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that Prendergast et al. does not disclose the antioxidant properties and the capacity to protect body cells from oxidative stress of the flavonoid compounds. Examiner respectfully notes that these properties are inherent in the flavonoid compounds.

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"Products of identical chemical composition can not have mutual exclusive properties." Any properties exhibited by or benefits from are not given any patentable weight over the prior art provided the composition is inherent. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the disclosed properties are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990). See MPEP 2112.01. The burden is shifted to the applicant to show that the prior art product does not inherently possess the same properties as the instantly claimed product.

Applicant argues that the teachings of Ley and Prendergast et al. are completely different with no motivation to combine. Finally, Applicants argue that Ley et al. and the remaining references are directed to nonanalogous art.

Examiner disagrees as both Ley and Prendergast et al. clearly disclose the use of bactericides and fungicides in their compositions.

"It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... The idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

This application contains claims 12-17 are drawn to an invention nonelected with traverse in the last Office Action. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong S. Chong whose telephone number is (571)-272-8513. The examiner can normally be reached on M-F, 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SREENI PADMANABHAN can be reached on (571)-272-0629. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YSC

SHENGJUN WANG  
PRIMARY EXAMINER